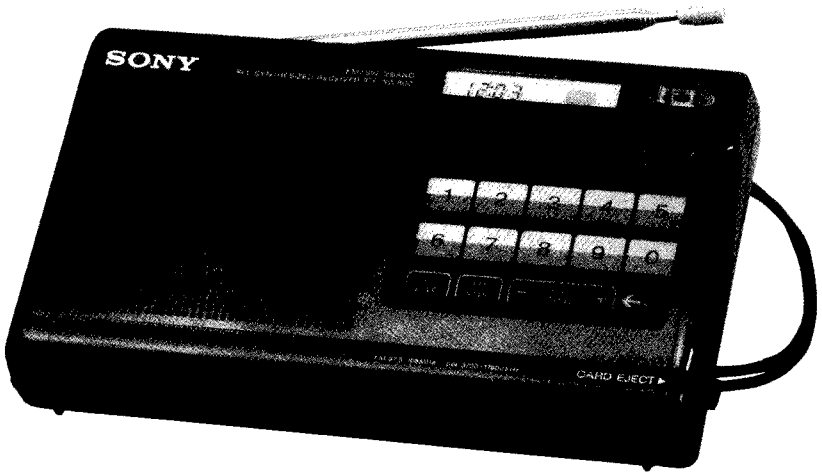
ICF-SW800

SERVICE MANUAL

AEP Model



SPECIFICATIONS

Frequency range	FM: 87.5 – 108 MHz SW: 3,700 – 17,900 kHz
Antenna	Telescopic antenna
Speaker	Approx.: 7.7 cm ($3^1/_8$ inches) dia. 8 ohms
Power output	250 mW (at 10% harmonic distortion)
Output	Earphone jack (minijack) Tape recording output jack (minijack) output level 0.775 mV (– 60 dB) output impedance 1 kilohms
Power requirements	4.5 V DC, three R6 (size AA) batteries DC IN 4.5 V jack accepts: Sony AC-D3M AC power adaptor (not supplied) available in the United Kingdom for use on 240 V AC, 50 Hz available in Continental European countries for use on 220 V AC, 50 Hz available in other countries for use on 120 V AC, 60 Hz or 220 V AC, 50 Hz Sony DCC-127A car battery cord (not supplied) for use with 12 V car battery
Battery life	Approx. 17 hours, using Sony batteries SUM-3 (NS)
Dimensions	Approx. 189 × 116 × 45 mm (w/h/d) ($7^1/_2 \times 4^5/_8 \times 1^{13}/_{16}$ inches) incl. projecting parts and controls
Weight	Approx. 540 g (1.2 lb) incl. batteries
Accessories supplied	Compact antenna (1), Earphone (1), Preset cards/memory cards (3), Clock card (1), Short wave guide (1), Preset frequency list (1)

Design and specifications subject to change without notice.

OVERVIEW/FEATURES

The ICF-SW800 is an FM/SW PLL synthesized receiver which features easy tuning using the frequency-preset cards.

Various ways of tuning using the preset cards

- Easy tuning . . . . . You can receive a desired station by only inserting a card in the unit and lightly touching the station name printed on the card.
- Direct tuning . . . . . Tuning in the station by directly inputting the frequency of the station.
- Manual tuning . . . . . Even if you don't know the frequency of the station, you can tune in the station precisely.
- Preset tuning . . . . . Stations can be preset using the cards.
- Timer standby . . . . . Function for receiving a desired station at a desired time.

Other features

- Quartz controlled PLL (Phase Locked Loop) synthesizer system using a microcomputer for easy pinpoint tuning. The tuned frequency is digitally displayed.
- Provided with a recording output jack.

This unit is supplied with four cards:
three for radio reception (frequency-preset cards and memory cards), and one for clock/timer setting (Clock Card).
For details on the cards and the receivable preset stations, refer to the supplied preset frequency list.

MICROFILM

MC-Service

FM/SW PLL SYNTHESIZED RECEIVER

SONY®

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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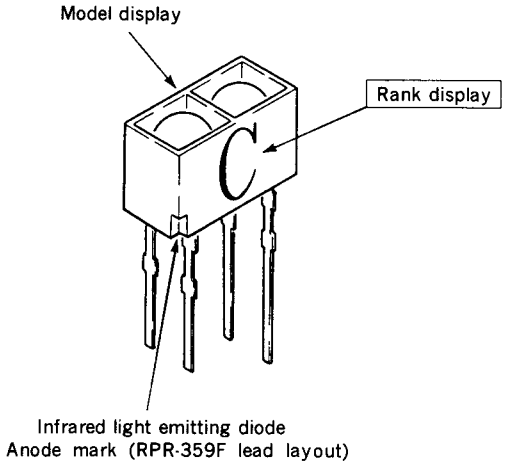
SERVICING NOTES

[Notes on Replacing Light Sensor RPR-359F (IC101 to 104)]

There are four ranks of RPR-359F using for the set.
The same rank is used for IC101 to 104.
The resister value of R213 according to the rank is shown in the following chart.

Rank of RPR-359F	Resister value of R213
A	56kΩ
B	39kΩ
C	22kΩ
D	12kΩ

The rank of RPR-359F supplied for correction is "C".



When replacing RPR-359F :

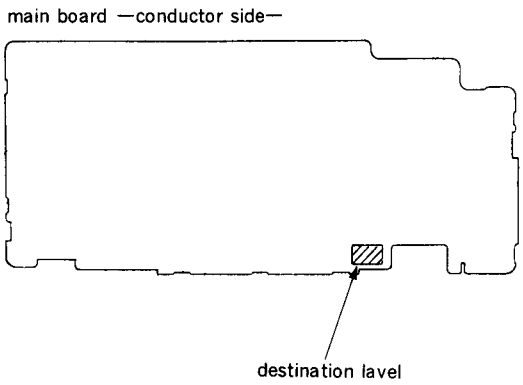
1. When the rank for using is except "C", replace IC101 to 104 (all four of them) with the parts for correction. Replace the resister of R213 with 22kΩ.
2. When the rank for using is "C", replace the bad RPR-359F.

[Notes on Replacing ROM IC (IC5)]

When replacing ROM IC, input short-wave broadcasting station frequency of each country again which was set initially.
Making reference to the following preset frequency matching the destination of the set with preset card and input it again.

Destination	Description
AE6	no lavel : Serial No.11301 to13800 exists lavel : Serial No.15401 and later See page 4 for preset frequency list
5AE7	exists lavel See page 5 for preset frequency list
3AE7	exists lavel See page 6 for preset frequency list

AE6 : Germany
5AE7 : Austria
3AE7 : Swiss



MC-Service

[Preset Frequency List]

• AE6 : Germany

SONY ICF-SW800

Liste der Vorwahlfrequenzen

Die unten stehende Tabelle enthält die mitgelieferten Vorwahlkarten und die zugehörigen werksseitig voreingestellten Frequenzen.

- Da viele KW-Sender die Frequenzen je nach Tageszeit ändern, ist ein Sender möglicherweise nicht immer auf der gleichen Frequenz zu empfangen. Wenn ein Sender auf mehreren Frequenzen das gleiche Programm ausstrahlt, hängt es außerdem auch von der Tageszeit ab, auf welcher Frequenz der Sender am besten empfangen werden kann.
- Werksseitig wurden die wichtigsten Frequenzen der, Sender voreingestellt. Damit ist jedoch noch nicht unbedingt sichergestellt, daß auf diesen Frequenzen jederzeit und an jedem Ort ein optimaler Empfang gewährleistet ist.
  In folgenden Fällen sollten neue Frequenzen abgespeichert werden, um einen besseren Empfang sicherzustellen:
  — Wenn nicht die gewünschte Sendung, sondern eine andere empfangen wird (da der Sender je nach Gebiet, Sprache und Zeit eine andere Frequenz verwendet).
  — Wenn der Sender die Frequenz geändert hat. (Die Empfangsbedingungen im KW-Bereich ändern sich je nach Jahreszeit und je nach der Aktivität der Sonnenflecken. Aus diesem Grund hat der Sender möglicherweise die Senderfrequenz geändert.)
- Im Gerät können insgesamt 60 Frequenzen abgespeichert werden, einschließlich den werksseitig voreingestellten und den vom Benutzer eingegebenen Frequenzen. Sämtliche Frequenzen können nachträglich wieder geändert werden.
  Das Gerät besitzt als Speicher ein EEP ROM. Dadurch bleiben die voreingestellten Frequenzen auch bei herausgenommenen Batterien erhalten.

1 Deutsche Welle

Vorwahl-nummer	Vorwahlsender		Frequenz (kHz)
1	DW		3995
2	DW		6075
3	DW		9545
4	DW		9690
5	DW	Deutsche Welle	11795
6	DW		13780
7	DW		15105
8	DW		17845
9	DW	Keine Speicherung*	3700
0	DW		3700

2 Omnibus 1

Vorwahl-nummer	Vorwahlsender		Frequenz (kHz)
1	SFB	Sender Freies Berlin	6190
2	SWF 3	Südwestfunk	7265
3	BR	Bayerischer Rundfunk	6085
4	RIAS	Rundfunk im amerikanischen Sektor	6005
5			3700
6			3700
7		Keine Speicherung*	3700
8			3700
9			3700
0			3700

3 Omnibus 2

Vorwahl-nummer	Vorwahlsender		Frequenz (kHz)
1	RTL	Radio-Tele-Luxembourg	6090
2	RÖI	Radio Österreich	5945
3	RÖI	International	6155
4	SRI	Swiss Radio	6165
5	SRI	International	9535
6	BBC	British Broadcasting	6010
7	BBC	Corporation	6125
8	VOA	Voice of America	6040
9		Keine Speicherung*	3700
0			3700

4 Free Memories 1

Vorwahl-nummer	Vorwahlsender	Frequenz (kHz)
1		3700
2		3700
3		3700
4		3700
5	Keine Speicherung*	3700
6		3700
7		3700
8		3700
9		3700
0		3700

5 Free Memories 2

Vorwahl-nummer	Vorwahlsender	Frequenz (kHz)
1		3700
2		3700
3		3700
4		3700
5	Keine Speicherung*	3700
6		3700
7		3700
8		3700
9		3700
0		3700

6 Free Memories 3

Vorwahl-nummer	Vorwahlsender	Frequenz (kHz)
1		3700
2		3700
3		3700
4		3700
5	Keine Speicherung*	3700
6		3700
7		3700
8		3700
9		3700
0		3700

* Bei Wahl dieser Vorwahlnummer wird 3700 kHz angezeigt, obwohl die Nummer keine Abspeicherung enthält. Speichern Sie die gewünschte Frequenz unter der gewünschten Nummer ab.

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• 5AE7 : Austria

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Liste der Vorwahlfrequenzen

Die unten stehende Tabelle enthält die mitgelieferten Vorwahlkarten und die zugehörigen werksseitig voreingestellten Frequenzen.

- Da viele KW-Sender die Frequenzen je nach Tageszeit ändern, ist ein Sender möglicherweise nicht immer auf der gleichen Frequenz zu empfangen. Wenn ein Sender auf mehreren Frequenzen das gleiche Programm ausstrahlt, hängt es außerdem auch von der Tageszeit ab, auf welcher Frequenz der Sender am besten empfangen werden kann.
- Werksseitig wurden die wichtigsten Frequenzen der, Sender voreingestellt. Damit ist jedoch noch nicht unbedingt sichergestellt, daß auf diesen Frequenzen jederzeit und an jedem Ort ein optimaler Empfang gewährleistet ist.
  In folgenden Fällen sollten neue Frequenzen abgespeichert werden, um einen besseren Empfang sicherzustellen:
  — Wenn nicht die gewünschte Sendung, sondern eine andere empfangen wird (da der Sender je nach Gebiet, Sprache und Zeit eine andere Frequenz verwendet).
  — Wenn der Sender die Frequenz geändert hat. (Die Empfangsbedingungen im KW-Bereich ändern sich je nach Jahreszeit und je nach der Aktivität der Sonnenflecken. Aus diesem Grund hat der Sender möglicherweise die Senderfrequenz geändert.)
- Im Gerät können insgesamt 60 Frequenzen abgespeichert werden, einschließlich den werksseitig voreingestellten und den vom Benutzer eingegebenen Frequenzen. Sämtliche Frequenzen können nachträglich wieder geändert werden.
  Das Gerät besitzt als Speicher ein EEP ROM. Dadurch bleiben die voreingestellten Frequenzen auch bei herausgenommenen Batterien erhalten.

1 Austrian Radio 1

Vorwahlnummer	Vorwahlsender		Frequenz (kHz)
1	ORF EUROPE	Austrian Radio	6155
2	ORF EUROPE		13730
3	ORF EUROPE		5945
4	ORF EUROPE		9870
5	ORF AFRICA		9870
6	ORF AFRICA		13730
7	ORF MIDDLE EAST		15410
8	ORF MIDDLE EAST		12010
9	Keine Speicherung*		3700
0			3700

2 Austrian Radio 2

Vorwahlnummer	Vorwahlsender		Frequenz (kHz)
1	ORF AMERICA	Austrian Radio	13730
2	ORF AMERICA		9870
3	ORF AMERICA		9875
4	ORF AMERICA		6015
5	ORF ASIA		11780
6	ORF ASIA		15430
7	ORF AUSTRALIA		15450
8			3700
9	Keine Speicherung*		3700
0			3700

3 Omnibus 1

Vorwahlnummer	Vorwahlsender		Frequenz (kHz)
1	Deutsche Welle		3995
2			6075
3			9545
4	BR 3	Bayerischer Rundfunk	6085
5	SWF 3	Südwestfunk	7265
6	SDR 1	Süddeutscher Rundfunk	6030
7	RB 1	Radio Bremen	6190
8	RIAS	Rundfunk im amerikanischen Sektor	6005
9	AWR	RTV Italiana	6060
0	RBI	Radio Berlin International	6115

4 Omnibus 2

Vorwahlnummer	Vorwahlsender		Frequenz (kHz)
1	BBC	British Broadcasting Corporation	12095
2			15070
3			9410
4	VOA	Voice of America	11970
5			11760
6			15205
7	SRI	Swiss Radio International	3985
8			6165
9			9535
0	RTL	Radio-Tele-Luxembourg	6090

5 Free Memories 1

Vorwahlnummer	Vorwahlsender	Frequenz (kHz)
1	Keine Speicherung*	3700
2		3700
3		3700
4		3700
5		3700
6		3700
7		3700
8		3700
9		3700
0		3700

6 Free Memories 2

Vorwahlnummer	Vorwahlsender	Frequenz (kHz)
1	Keine Speicherung*	3700
2		3700
3		3700
4		3700
5		3700
6		3700
7		3700
8		3700
9		3700
0		3700

*Bei Wahl dieser Vorwahlnummer wird 3700 kHz angezeigt, obwohl die Nummer keine Abspeicherung enthält. Speichern Sie die gewünschte Frequenz unter der gewünschten Nummer ab.

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• 3AE7 : Swiss

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3-752-556-61 (1)
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Liste des fréquences préréglées

Le tableau ci-dessous précise les cartes préréglées fournies et les fréquences correspondantes préréglées en usine dans la radio.

- Bien que les fréquences qui ont été préréglées en usine soient celles des principales stations émettrices, utilisées continuellement, il arrive que les émissions soient moins bien reçues dans certains endroits.
- Cet appareil a une mémoire pour 60 fréquences différentes, comprenant celles qui sont préréglées en usine et celle pouvant être préréglées par l'utilisateur. Toutes les fréquences préréglées peuvent être modifiées.
  Cet appareil est également équipé d'une mémoire CI intégrée (EEP ROM). Les fréquences préréglées sont préservées même si vous retirez les piles.

1 Omnibus 1

Numéro de préréglage / Vorwahl-nummer / Numero di preselezione	Station préréglée / Vorwahlsender / Stazione preselezionata	Fréquence / Frequenz / Frequenza
1	DRS 1 — Radio der deutschen und rätoromanischen Schweiz	94,6 MHz
2	DRS 1	99,9
3	DRS 3	97,5
4	DRS 3	105,6
5	RSR 1 — Radio Swisse Romande	94,8
6	RSR 3	100,1
7	RSI 1 — Radio Svizzera Italia	88,1
8	Couleur 3	101,7
9	Néant* / Keine Speicherung* / Nessuna*	3700 kHz
0		3700

4 Free Memories 1

Numéro de préréglage / Vorwahl-nummer / Numero di preselezione	Station préréglée / Vorwahlsender / Stazione preselezionata	Fréquence / Frequenz / Frequenza
1	Néant* / Keine Speicherung* / Nessuna*	3700 kHz
2		3700
3		3700
4		3700
5		3700
6		3700
7		3700
8		3700
9		3700
0		3700

*Aucune station particulière n'est préréglée sur ces numéros, bien que "3700 kHz" soit affiché si un de ces numéros préréglés est sélectionné.
Veuillez prérégler les fréquences de votre choix sur les numéros souhaités.

Liste der Vorwahlfrequenzen

Den untenstehenden Tabellen können die werksseitig voreingestellten Frequenzen entnommen werden.

- Werksseitig wurden die wichtigsten Senderfrequenzen adgespeichert. Je nach Empfangsbedingung, Empfangsort und Zeit kann es jedoch vorkommen, daß der Empfang auf diesen frequenzen nicht optimal ist.
- Im Gerät können insgesamt 60 Frequenzen abgespeichert werden, einschließlich den werksseitig voreingestellten und den vom Benutzer eingegebenen Frequenzen. Sämtliche Frequenzen können nachträglich wieder geändert werden.
  Das Gerät besitzt als Speicher ein EEP ROM. Dadurch bleiben die voreingestellten Frequenzen auch bei herausgenommenen Batterien erhalten.

2 Omnibus 2

Numéro de préréglage / Vorwahl-nummer / Numero di preselezione	Station préréglée / Vorwahlsender / Stazione preselezionata		Fréquence / Frequenz / Frequenza
1	R. Aktuell	Radio Aktuell	92,9 MHz
2	R. Basilisk	Radio Basilisk	94,5
3	R. Eulach	Radio Eulach	107,2
4	R. Extra B	Radio Extra Bern	97,7
5	R. Förderb.	Radio Förderband	104,2
6	R. Pilatus	Radio Pilatus	104,9
7	R. Raurach	Radio Raurach	106,4
8	Radio Z		100,9
9	R. Zürichsee	Radio Zürichsee	104,9
0	Radio 24		102,8

5 Free Memories 2

Numéro de préréglage / Vorwahl-nummer / Numero di preselezione	Station préréglée / Vorwahlsender / Stazione preselezionata	Fréquence / Frequenz / Frequenza
1	Néant* / Keine Speicherung* / Nessuna*	3700 kHz
2		3700
3		3700
4		3700
5		3700
6		3700
7		3700
8		3700
9		3700
0		3700

*Bei Wahl dieser Vorwahlnummer wird 3700 kHz angezeigt, obwohl die Nummer keine Abspeicherung enthält.
Speichern Sie die gewünschte Frequenz unter der gewünschten Nummer ab.

Lista delle frequenze preselezionate

La tabella sottostante indica le schede di preselezione in dotazione e le frequenze corrispondenti che sono state preselezionate in fabbrica nella radio.

- Nonostante le frequenze preselezionate in fabbrica siano le frequenze principali di ciascuna stazione radio e siano state usate continuamente, le trasmissioni possono non essere udibili dappertutto con una ricezione ottimale.
- Questo apparecchio ha una memoria per 60 frequenze diverse, comprese le frequenze preselezionate in fabbrica e quelle che possono essere preselezionate dall'utente. Tutte le frequenze preselezionate possono essere cambiate.
  Questo apparecchio possiede anche un circuito integrato di memoria incorporato (EEP ROM). Le frequenze preselezionate vengono conservate anche se si estraggono le pile.

3 Omnibus 3

Numéro de préréglage / Vorwahl-nummer / Numero di preselezione	Station préréglée / Vorwahlsender / Stazione preselezionata		Fréquence / Frequenz / Frequenza
1	R. Cité	Radio Cité Genève	91,8 MHz
2	R. Chablais	Radio Chablais	90,4
3	R. Lac	Radio Lac	97,6
4	R. Jura	Radio Jura Bernois	91,5
5	I.v.d.Berlin.	La voce del Bellinzonese	90,6
6	OE 3	Oesterreichischer Rundfunk	89,5
7	SWF 1 — Südwestfunk		91,2
8	SWF 3		97,1
9	BR 3	Bayerischer Rundfunk	94,0
0	Radio 7		102,5

6 Free Memories 3

Numéro de préréglage / Vorwahl-nummer / Numero di preselezione	Station préréglée / Vorwahlsender / Stazione preselezionata	Fréquence / Frequenz / Frequenza
1	Néant* / Keine Speicherung* / Nessuna*	3700 kHz
2		3700
3		3700
4		3700
5		3700
6		3700
7		3700
8		3700
9		3700
0		3700

*Nessuna particolare stazione è preselezionata su questi numeri, anche se "3700 kHz" viene visualizzato quando si seleziona uno di questi numeri di preselezione.
Preselezionare la frequenza desiderata sul numero desiderato.

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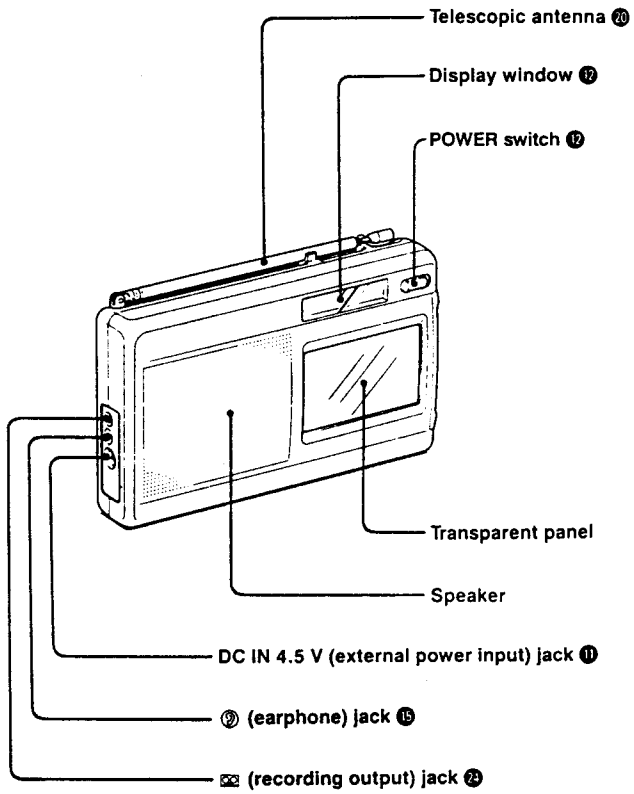
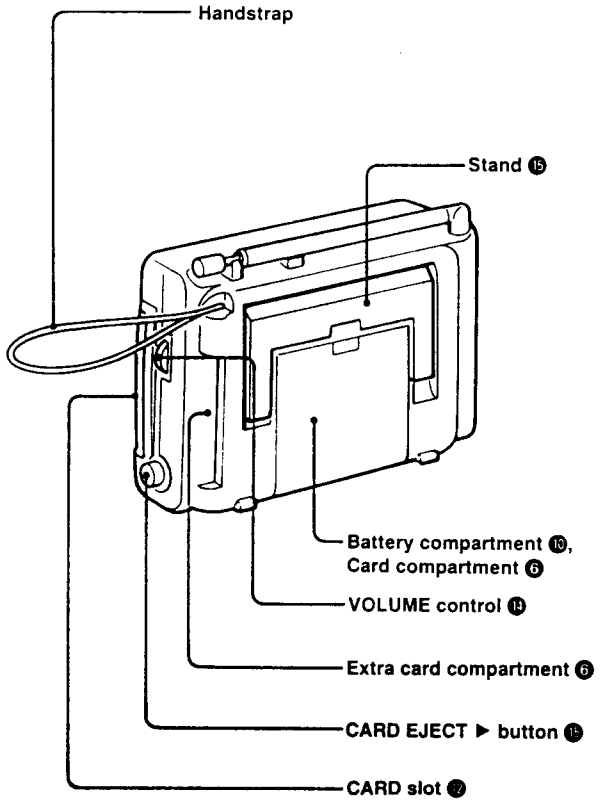
Location of Controls

Refer to the pages in ● for details.

Front



Rear



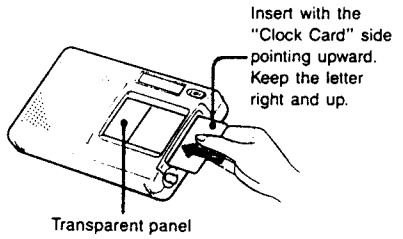
This section is extracted from instruction manual.

Setting the Clock

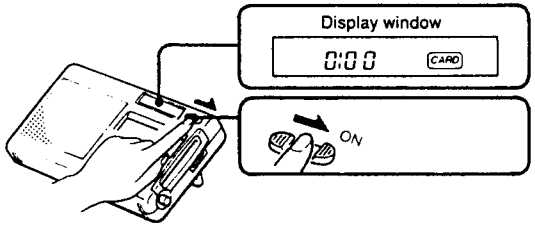
This clock shows with 24-hour system.

Example: To set to 8:15

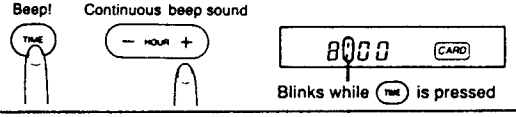
1 **Insert the "Clock Card" into the CARD slot.**



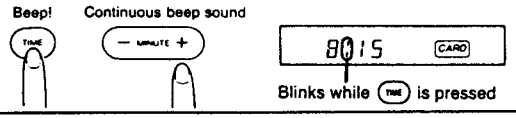
2 **Set the POWER switch to ON.**
(Keep the button on the POWER switch pressed and slide the switch in the arrow direction.)



3 **Set the hour.**
Keep (TIME) pressed and then press (– HOUR +).



4 **Set the minute.**
Keep (TIME) pressed and then press (– MINUTE +).



5 **Release (TIME) just at 8:15.**
The clock will begin to operate.

- When (– HOUR +) or (– MINUTE +) is kept pressed, the digits advance rapidly.
- The minute digits advance to "00" after "59". The hour digits do not advance by pressing (– MINUTE +).

Zero second adjustment
If you want to adjust the time exactly to the second with a telephone or radio time signal, proceed as in the following example.

Example: To set to 7:15

1 Adjust the time indication to 19:15 and keep (TIME) pressed.
2 Release (TIME) simultaneously with the time signal.
The clock will then show the precise time.

You can adjust the time to the second only after setting the hour and minute using (TIME) and (– HOUR +) or (– MINUTE +).

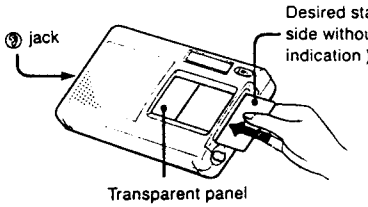
Notes
- When setting the clock, make sure that the POWER switch is set to ON.
- You can set the clock while the radio is on. However, when (TIME) or (ALARM) is pressed, radio sound cannot be heard.
- Even if the POWER switch is set to OFF the current time appears on the display window.
- When the POWER switch is set to STBY, the preset alarm time appears on the display window and changes to the current time display about four seconds later.
- The current time indication will disappear about one minute after the batteries are removed. When the batteries are installed again, "0:00" will be displayed.

Listening to the Radio

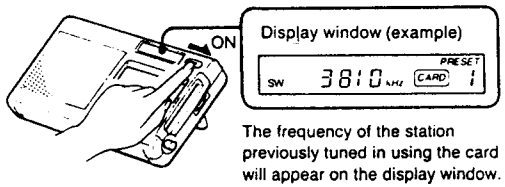
Using the Preset Cards (SW only)

The frequencies have been preset in advance.

1 **Insert a preset card.**

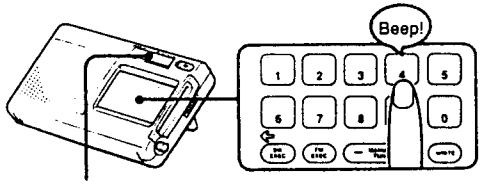


2 **Set the POWER switch to ON.**



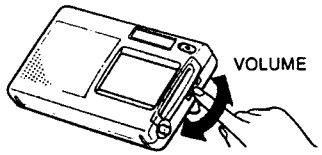
The frequency of the station previously tuned in using the card will appear on the display window.

3 **Select the desired station.**
Lightly touch the preset number of the station you want to listen to.

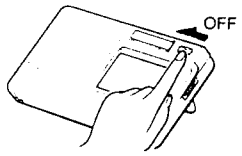


The frequency of the station you have selected appears on the display window.

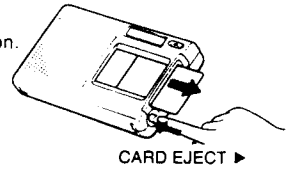
4 **Adjust the volume.**



To stop the radio.
Set the POWER switch to OFF



To eject the card
Depress the CARD EJECT ▶ button.

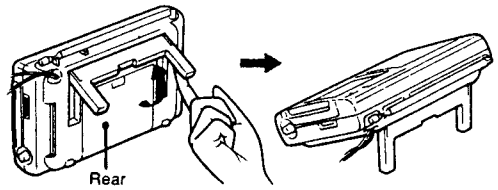


Even after you have ejected the card, the station continues being received. The frequency of the station remains on the display window but the preset number and the CARD indication disappear.

Once you receive a station using a card, the station is memorized in the unit even if the unit is turned off while the station is received. When the unit is turned on and the card is inserted into the unit, the same station will be received automatically.

When an earphone is connected to the ⑨ jack, the radio sound cannot be heard from the speaker.

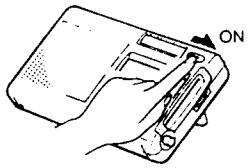
Using the stand
When you use the unit on a table, etc., we recommend you use the stand as shown in the illustration.



Without Using the Cards

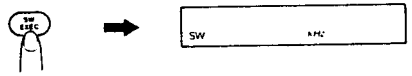
Direct tuning — **When you know the frequency of the desired station**

1 **Set the POWER switch to ON.**



2 **Touch (3 SEC) or (10 SEC) lightly.**

Example: To tune in SW 3810 kHz

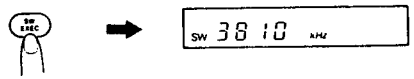


3 **Touch the numbers lightly to enter the frequency.**

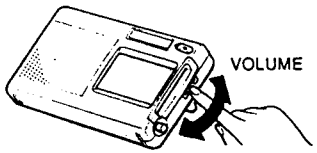
Beep! Beep! Beep! Beep!
3 → 8 → 1 → 0

Each operation must be done within about five seconds.
The unit will go back to the state of step 1 after five seconds.

4 **Touch (3 SEC) or (10 SEC) lightly.**



5 **Adjust the volume.**



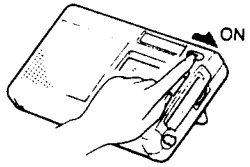
To turn off the radio, set the POWER switch to OFF.

When the frequency near the input frequency is displayed
The frequencies which this radio receives are allocated in the following intervals, depending on the broadcast band. If you input a frequency that does not match these intervals, the frequency just below the one that you input will be tuned in and will be displayed.
e.g. If you input SW 3999, the display will show SW 3995.

FM	0.05 MHz
SW	5 kHz

Manual tuning — **When you do not know the frequency of the desired station**

1 **Set the POWER switch to ON.**



2 **Tune in a frequency near the desired station in the same way as in direct tuning.**

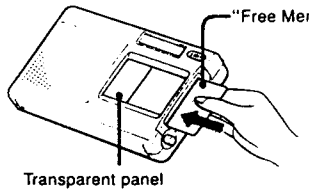
3 **Touch (− MANUAL TUNE +) repeatedly to tune in the desired station precisely.**
Each pressing on (− MANUAL TUNE +) changes the frequencies in 5 kHz intervals for SW or in 0.05 MHz intervals for FM. When (− MANUAL TUNE +) is kept pressed, the frequencies change more quickly with a continuous beep sound.

Even when the card is inserted, you can tune in a station in the same way.

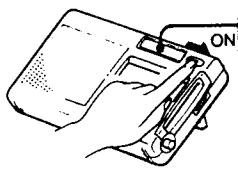
To Preset the Desired Station Us ing the Memory Card

Example: To preset SW 3810 kHz on preset number 9.

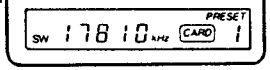
1 **Insert a memory card (Free Memories 1,2 or 3).**



2 **Set the POWER switch to ON.**

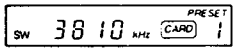


Display window (example)



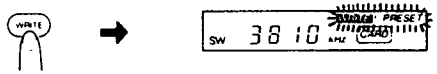
The frequency of the station previously tuned in with the card will appear on the display window.

3 **Tune in the desired station.**
(See pages ⓰ and ⓱)



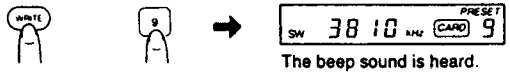
4 **Keep (WRITE) pressed.**

Blinks



After a few seconds, the WRITE, *PRESET* indications will blink and a continuous beep sound will be heard.

5 **Keep (WRITE) pressed and then press the desired preset number.**



The beep sound is heard.

Now the station has been memorized.

If you keep (WRITE) pressed for about seven seconds, the WRITE, *PRESET* indications will disapper and you cannot proceed to step 5. In such a case, go back to step 4.

You can have the stations memorized on the empty numbers on the preset cards as well as those on the memory cards.

To change the preset station
Preset a station on a desired number. The station previously stored on the number is erased.

Note
You can also change the stations on the factory-preset card. If the frequency of the station changes, preset new frequency on the card.

If you touch the wrong number
Repeat the operation from step 3 on page ⓲. Or, if you leave the unit untouched for more than about four seconds, the unit will go back to the state of step 2. Repeat the steps from 3.

When the TRY AGAIN, indication blinks
If you input a frequency outside the frequency range, the TRY AGAIN, indication will blink. Input the correct frequency so that the TRY AGAIN, indication will disappear.
Or if you leave the unit untouched for more than five seconds, the TRY AGAIN, indication will disappear and the display window will show the frequency being tuned in.

Listening to a Preset Station

Insert the memory card to the CARD slot and touch the desired preset number.

Notes
- A total of 10 FM and SW stations can be preset on the "Free Memories" sides of the card.
- When the beep sound is not heard while presetting a station (step 5), the station has not been memorized. Try again from step 4 on page ⓲.
- The preset station will not be erased even if the batteries are removed.

To Turn the Radio On at the Desi red Time — Timer Function

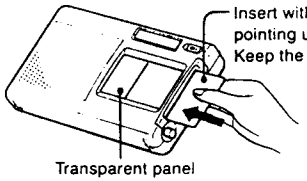
Example: To set the timer to 6:30

1 **Tune in the desired station. (See pages ⓭ and ⓯)**

2 **Adjust the volume.**

3 **Remove the preset card if it is inserted.**

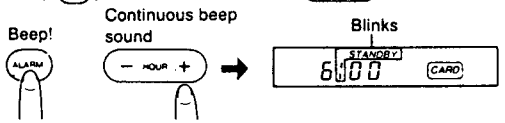
4 **Insert the Clock Card.**



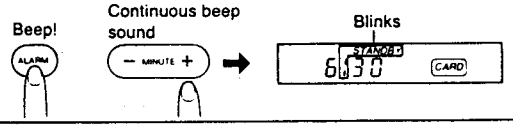
Make sure that the current time is correctly set. If not, set the clock. See page ⓬.

5 **Set the time.**

Keep (ALARM) pressed and then press (– HOUR +) to set the hour.

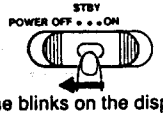


Keep (ALARM) pressed and then press (– MINUTE +) to set the minute.



6 **Release (ALARM).**
Now the timer has been set.
The display window returns to indicate the current time.

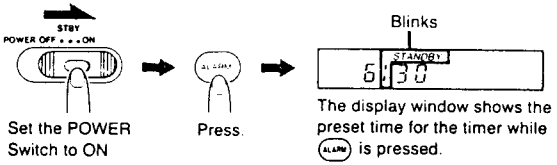
7 **Set the POWER switch to STBY.**



The preset time blinks on the display window for about four seconds and then changes to the current time indication.

The radio will be turned on at the preset time, and then will shut off automatically after 65 minutes.

To check the preset time



When you set the POWER switch to STBY, the display window will show the preset time for about four seconds even if the Clock Card is not installed.

To change the preset time

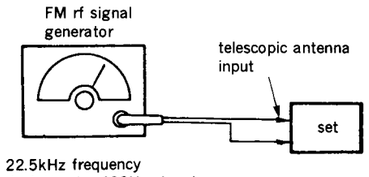
Perform the steps on page ㉒ all over again. The previously set time is erased and the newly set time is memorized. You cannot cancel the preset time without presetting a different time.

Once the timer is set

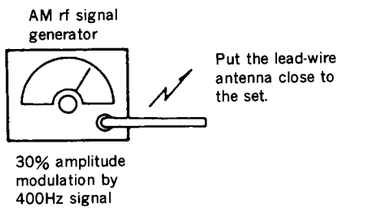
- You do not have to leave the "Clock Card" inserted to have the timer activated.
- If the POWER switch is kept at STBY, the radio will be turned on at the preset time every day.
- Which station will be heard at the preset time?
  - — When a card is inserted, the station previously tuned in with the card is received first.
  - — When no card is inserted, the station that was being received just before is received.

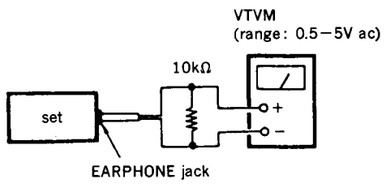
SECTION 2
ELECTRICAL ADJUSTMENTS

• FM Section


FM rf signal generator
telescopic antenna input
set
22.5kHz frequency deviation by 400Hz signal outpot level: as low as possible

• SW Section





- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done be the trimmer capacitors.

(1) 1st/2nd IF ADJUSTMENT

Procedure :

1. Set the frequencies of the AM RF SSG and the frequency display of the set to 3700kHz.
2. Adjust L9 (1st IF) and L10 (2nd IF) to obtain a maximum reading on the VTVM.

(2) FM/SW VCO ADJUSTMENT (FREQUENCY COVERAGE ADJUSTMENT)

Procedure :

1. Tune the set to FM 87.5MHz.
2. Adjust L12 to obtain a 1.4−1.6V on the digital volt meter.
3. Tune the set to FM 108MHz.
4. Confirm that the voltage reading on the digital volt meter is 10.5−11.5V.
5. Tune the set to SW 3700kHz.
6. Confirm that the voltage reading on the digital volt meter is 1.1−1.5V.
7. Tune the set to SW 17900kHz.
8. Confirm that the voltage reading on the digital volt meter is 13−14V.

(3) FM TRACKING ADJUSTMENT

Procedure :

1. Set the frequencies of the FM RF SSG and the frequency display of the set to 87.5MHz.
2. Adjust L11 to obtain a maximum reading on the VTVM.
3. Set the frequencies of the FM RF SSG and the frequency display of the set to 108MHz.
4. Adjust CT1 to obtain a maximum reading on the VTVM.

(4) 1st LOCAL OSC CHECK

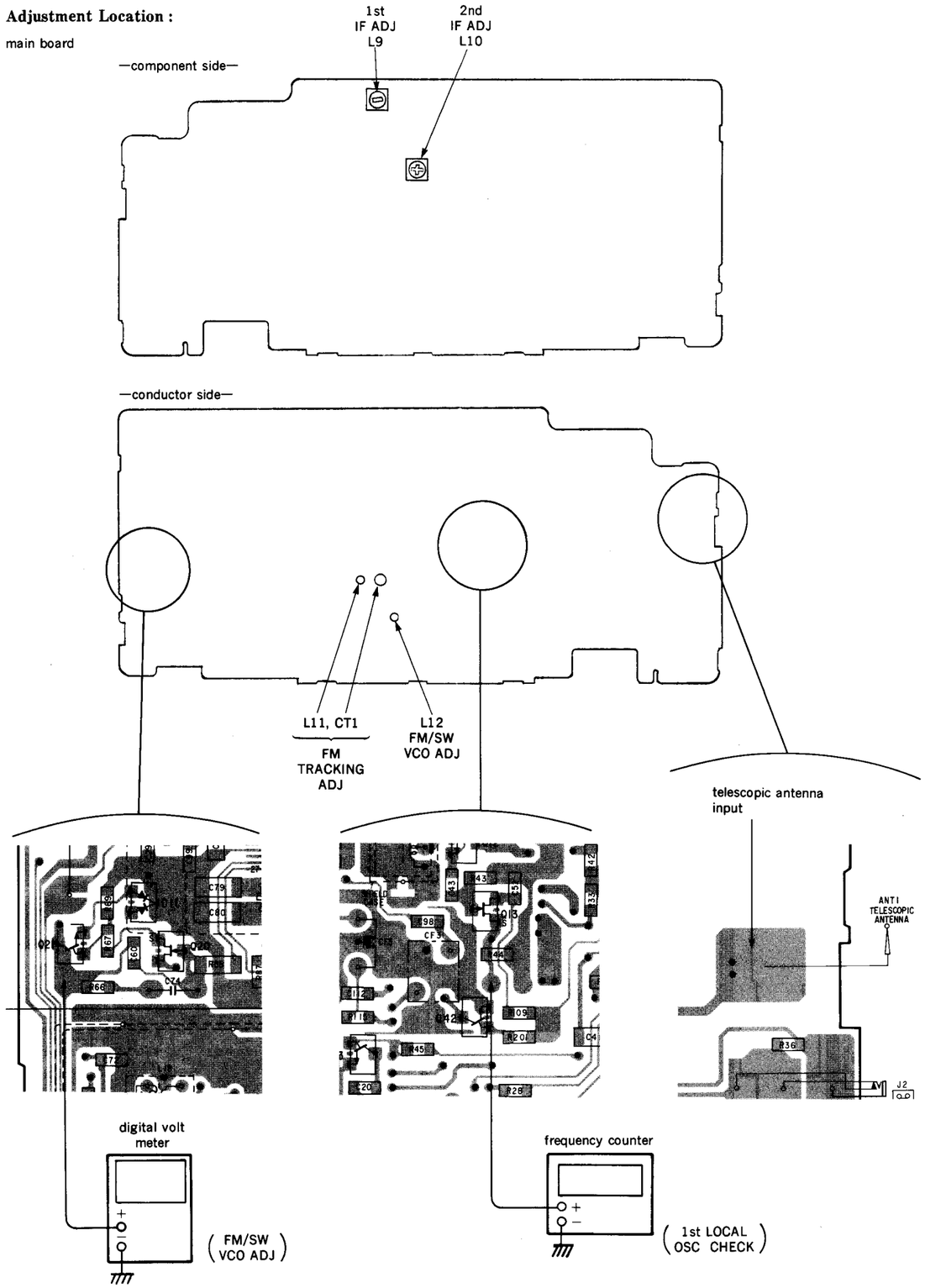
Procedure :

1. Tune the set to SW 17900kHz.
2. Confirm that the frequency reading on the frequency counter.

Confirmation value :
28599600 to 28600400Hz

Adjustment Location :

main board



3-1. TERM

Pin No.	P
1 | 10	
48 | 53	
11 | 13	
14	
15	
16	
17	
18	
19	
20	
46	
21	
22	
23	
24	
25	
26	
27	
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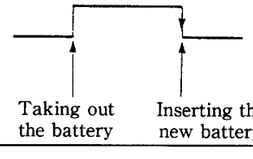
29	
30	
31	

MC-Service

SECTION 3
IC TERMINAL DESCRIPTION

3-1. TERMINAL DESCRIPTION OF μPD1715G-605-22 (IC2)

Pin No.	Pin Mark	Pin Name	Description	Active
1 | 10	LCD10 | LCD1	LCD segment signal	• Segment signal output terminal to the LCD panel.	——
48 | 53	LCD16 | LCD11			
11 | 13	COM3 | COM1	LCD common signal	• Common signal output terminal to the LCD panel.	——
14	VSS3	Capacitor connecting terminal for doubler	• Capacitor connecting terminal for the doubler circuit to produce the LCD driving voltage.	——
15	CAP2			
16	CAP1			
17	VSS2			
18	MUTE	Mute terminal	• Mute signal output terminal to cut the shock noise and the key-scan noise which are generated by releasing PLL lock.	Low
19	BEEP	Buzzer output terminal	• Output terminal of the write ararm sound, the key-in beep sound, and scan beep sound.	——
20 46	VDD	Power source input terminal	• Power source terminal of the device. • When the power of 0 to 2.0V is supplied to this terminal, the power-on reset circuit of the device is operated and the program starts form the address 0.	——
21	M	Input terminal of dividing ratio selecting control signal	• Terminal for selecting the dividing ratio of the inner prescaler. (Only when the VCOH terminal is used for the VCO input.) • When High level is set, 1/4 dividing is performed. When Low level is set, 1/2 dividing is performed.	——
22	VCOH	FM local oscillator signal input terminal	• Terminal for input the FM local oscillator signal when receiving the FM band.	——
23	VCOL	AM local osillator signal input terminal	• Terminal for input the AM local oscillator signal when receiving the AM band.	——
24	VSS1	GND terminal	• GND terminal of the device.	——
25 26	EO	Error output terminal	• Error output terminal of the PLL.	——
27	CE	Reduced voltage detecting terminal	• Reduced voltage terminal of the set. • When Low level is set, the tuner is turned off and the clock mode is set.	——
28 29	Xo Xi	Crystal vibrator connecting terminal	• Connecting terminal of the crystal vibrator. • The crystal with 75kHz is connected.	——
30	POWER SW	Power-on input terminal	• Input terminal of the power-on information.	High
31	BATT CHANGE	Battery change information input terminal	• Input terminal for detecting the changing of the battery.  	

Pin No.	Pin Mark	Pin Name	Description	Active
32	CARD DATA/ CARD DET	Card information input terminal	• Input terminal of the card detecting switch (S2). • Input terminal of the card reading data. The types of the card are distinguished by the 4-bit serial signal from the IC7.	——
33	STANDBY /DO	Standby information/ ROM data input terminal	• Input terminal of the standby information. Low → High signal is input when the power source switch (S1) is at the standby position. • Input terminal of the ROM data.	——
34	SW/MW	Band data output terminal	Not used.	——
35	AM/FM	AM/FM selecting signal terminal	Output terminal of the band information. At FM : Low At SW : High	——
36	POWER	Power-on information output terminal	• Output terminal of the power ON/OFF. When the radio is turned ON : High When the radio is turned OFF : Low	High
37	CS/INT/ STBY/ CARD	CS Initialize terminal Standby terminal Card read terminal Card signal	• The timing pulse to read the contents is output when command or data is sent to the ROM. • The reset signal is output when selecting the band selection and the frequency step (9k/10k) or replacing the battery. • The setting of the standby position of the power source switch (S1) is detected and High is output to the Pin ㉝ • The timing signal to read the card is output. • High pulse is output when the card detecting switch (S2) is pressed.	——
38 39 40 42	PC3 PC2 PC1 PC0	Key source output terminal of the momentary key	• Output terminal of the key source of the momentary key. • The pulse for distinguishig the types of the inserted card is output. PC2 : ROM writing data is output. PC3 : Clock signal is sent the moment the PC2 signal is output.	High
43 44 45 47	K3 K2 K1 K0	Key return signal input terminal	• Input terminal of the key return signal of the momentary key and the diode switch.	High
41	NC	NC terminal	• The terminal is not connected with the inner chip.	——

3-2. FUNCTION OF BR93CS46F (IC5) TERMINAL

Pin name	I/O	Function
VCC	—	Power source of 5V±10% is connected.
GND	—	Standard voltage of all input-output, 0V.
CS	I	Chip select input
SK	I	Serial data clock input
DI	I	Operation code, address, serial data input.
DO	O	Serial data output READY/$\overline{\text{BUSY}}$ inner condition display output.
PE	I	Program enable input, pulled up in the inner part at open.
PRE	I	Protect resister enable input, pulled down in the inner part at open.

SECTION 4
DIAGRAMS

4-1. PRINTED WIRING BOARDS

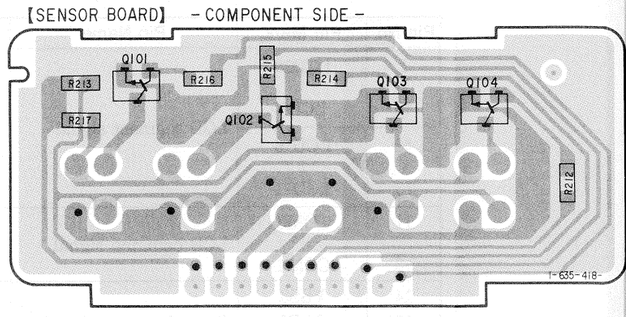
• Refer to page 25 for Semiconductor Lead Layouts.

• Semiconductor Location

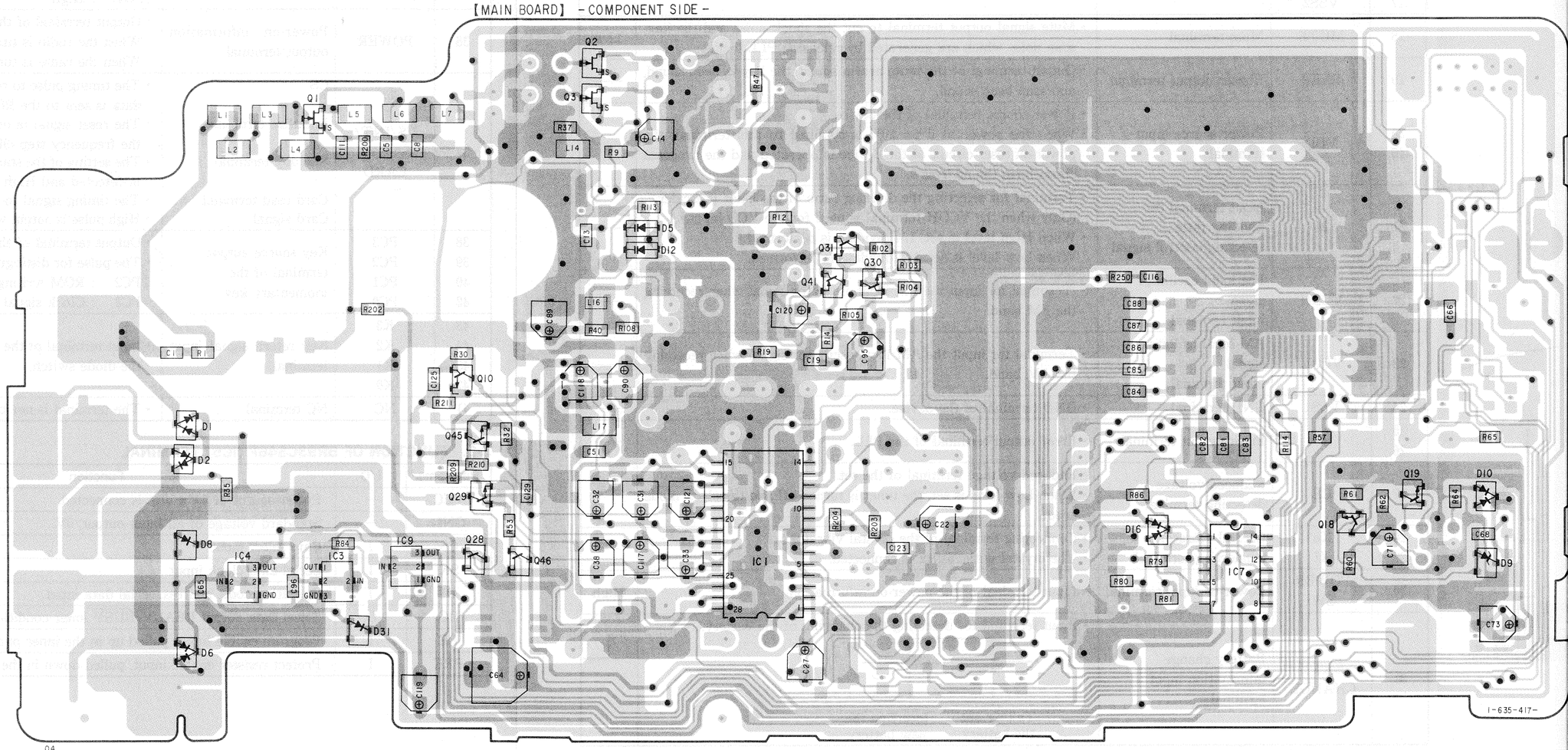
Ref. No.	Location	Ref. No.	Location
D1	G-2	Q30	F-9
D2	G-2	Q31	E-8
D3	I-22	Q40	E-22
D4	I-22	Q41	F-8
D5	E-7	Q42	H-24
D6	I-2	Q43	H-23
D8	H-2	Q44	H-21
D9	H-14	Q45	G-5
D10	H-14	Q46	H-5
D11	F-16	Q101	A-12
D12	E-7	Q102	A-12
D16	H-11	Q103	A-13
D17	H-18	Q104	A-14
D18	I-20		
D19	H-20		
D20	H-20		
D21	H-20		
D23	F-27		
D24	F-22		
D31	I-4		
D32	G-22		
D33	H-22		
IC1	H-8		
IC2	F-18		
IC3	H-4		
IC4	H-3		
IC5	H-19		
IC6	H-19		
IC7	H-12		
IC8	I-25		
IC9	H-4		
IC101	B-19		
IC102	B-18		
IC103	B-17		
IC104	B-16		
Q1	D-4		
Q2	D-6		
Q3	D-6		
Q4	E-22		
Q5	F-22		
Q6	I-20		
Q7	I-21		
Q8	G-26		
Q9	F-16		
Q10	G-5		
Q11	E-24		
Q12	F-24		
Q13	G-24		
Q14	D-23		
Q15	H-27		
Q16	I-26		
Q17	H-26		
Q18	H-13		
Q19	H-13		
Q20	G-17		
Q21	G-16		
Q22	I-16		
Q23	I-19		
Q28	H-5		
Q29	H-5		

Note:
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- indicates side identified with part number.
- : Through hole.
- : Pattern on the side which is seen.
- : Pattern of the rear side.

【SENSOR BOARD】 – COMPONENT SIDE –

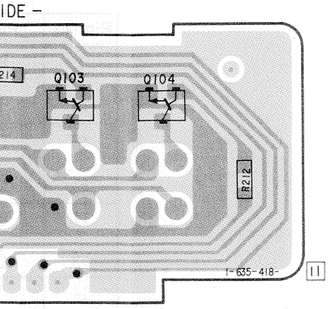


【MAIN BOARD】 – COMPONENT SIDE –

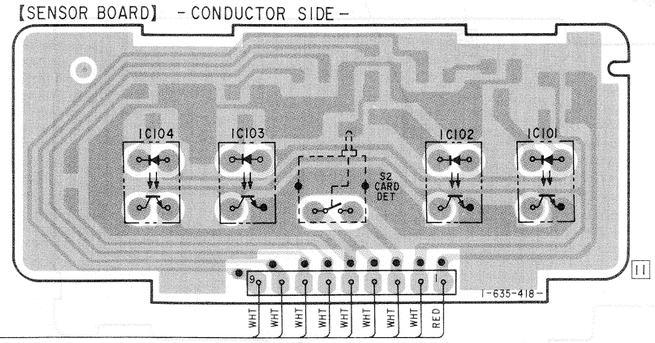


13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

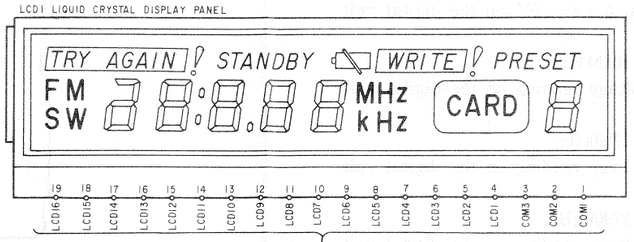
IDE –



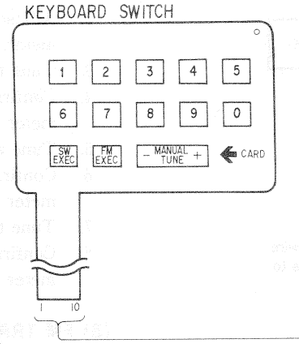
【SENSOR BOARD】 – CONDUCTOR SIDE –



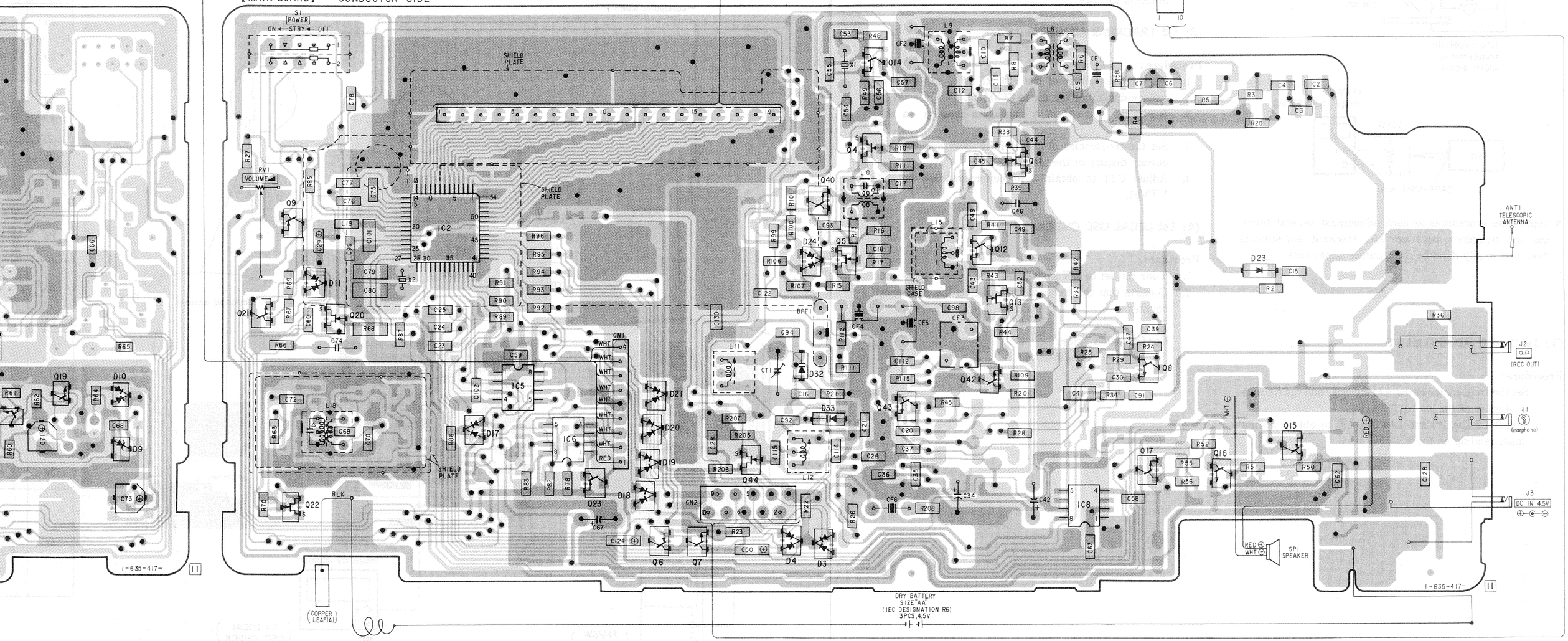
LCD1 LIQUID CRYSTAL DISPLAY PANEL



KEYBOARD SWITCH



【MAIN BOARD】 – CONDUCTOR SIDE –



4-2. SCHEMATIC DIAGRAM

• Refer to page 25 for IC Block Diagrams and Waveforms.

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- Total current is measured with no cassette installed.
- Power voltage is dc 4.5V and fed with regulated dc power supply from external power voltage jack.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  - no mark : FM
  - ( ) : SW
  - < > : FM (VOLUME POSITION: Min→Max)
  - [ ] : SW (VOLUME POSITION: Min→Max)
- Voltages are taken with a VOM (Input Impedance 1MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ⇨ : FM
  - ⇛ : SW

• Notes for Replacing Light Sensor RPR-359F (IC101 to 104)

There are four ranks of RPR-359F using for the set.

The same rank is used for IC101 to 104.

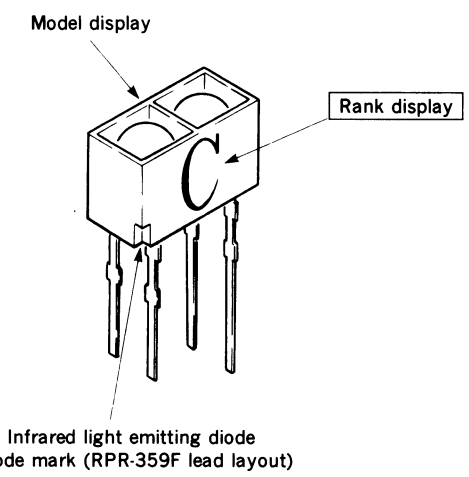
The resister value of R213 according to the rank is shown in the following chart.

Rank of RPR-359F	Resister value of R213
A	56kΩ
B	39kΩ
C	22kΩ
D	12kΩ

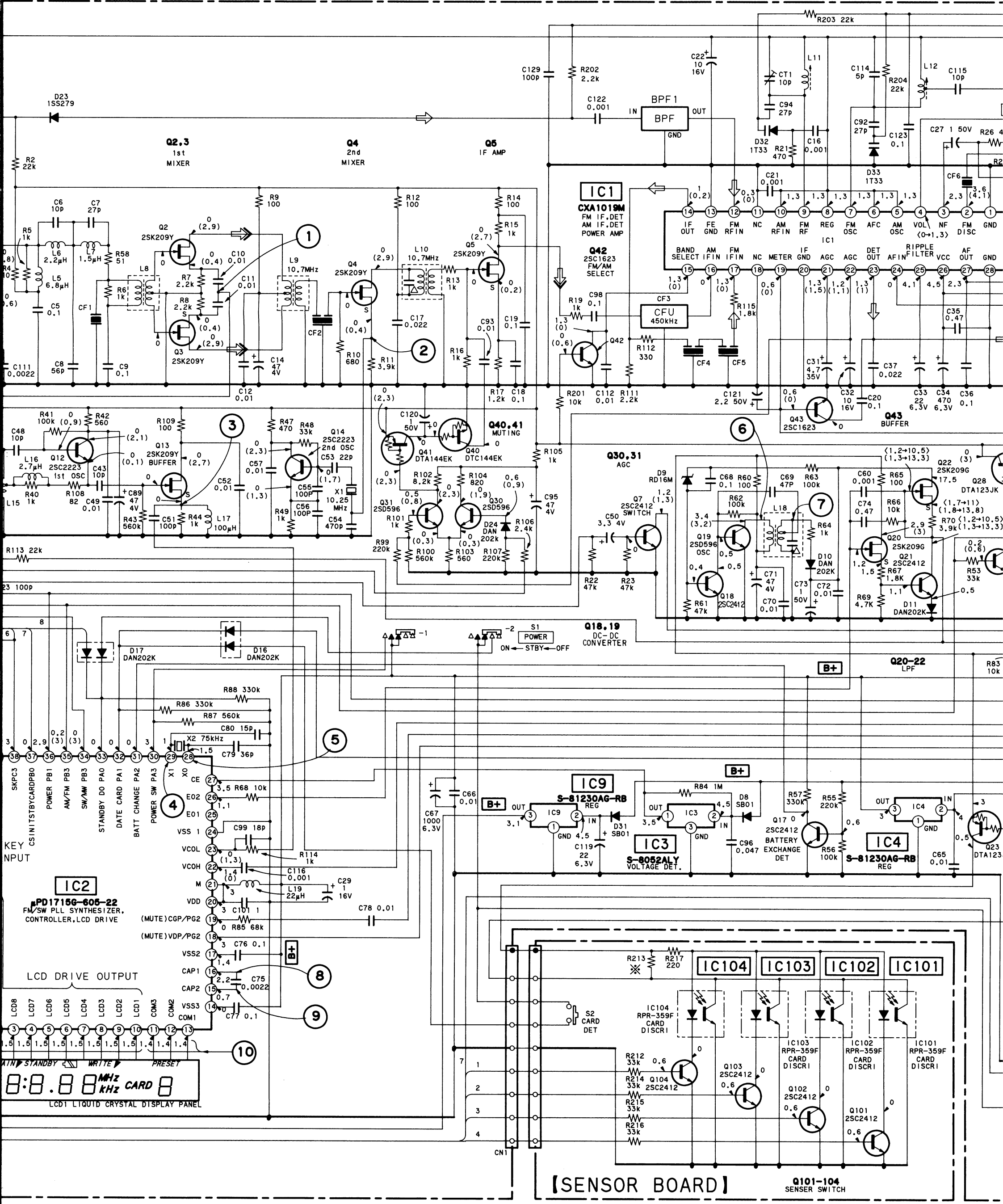
The rank of RPR-359F supplied for correction is "C".

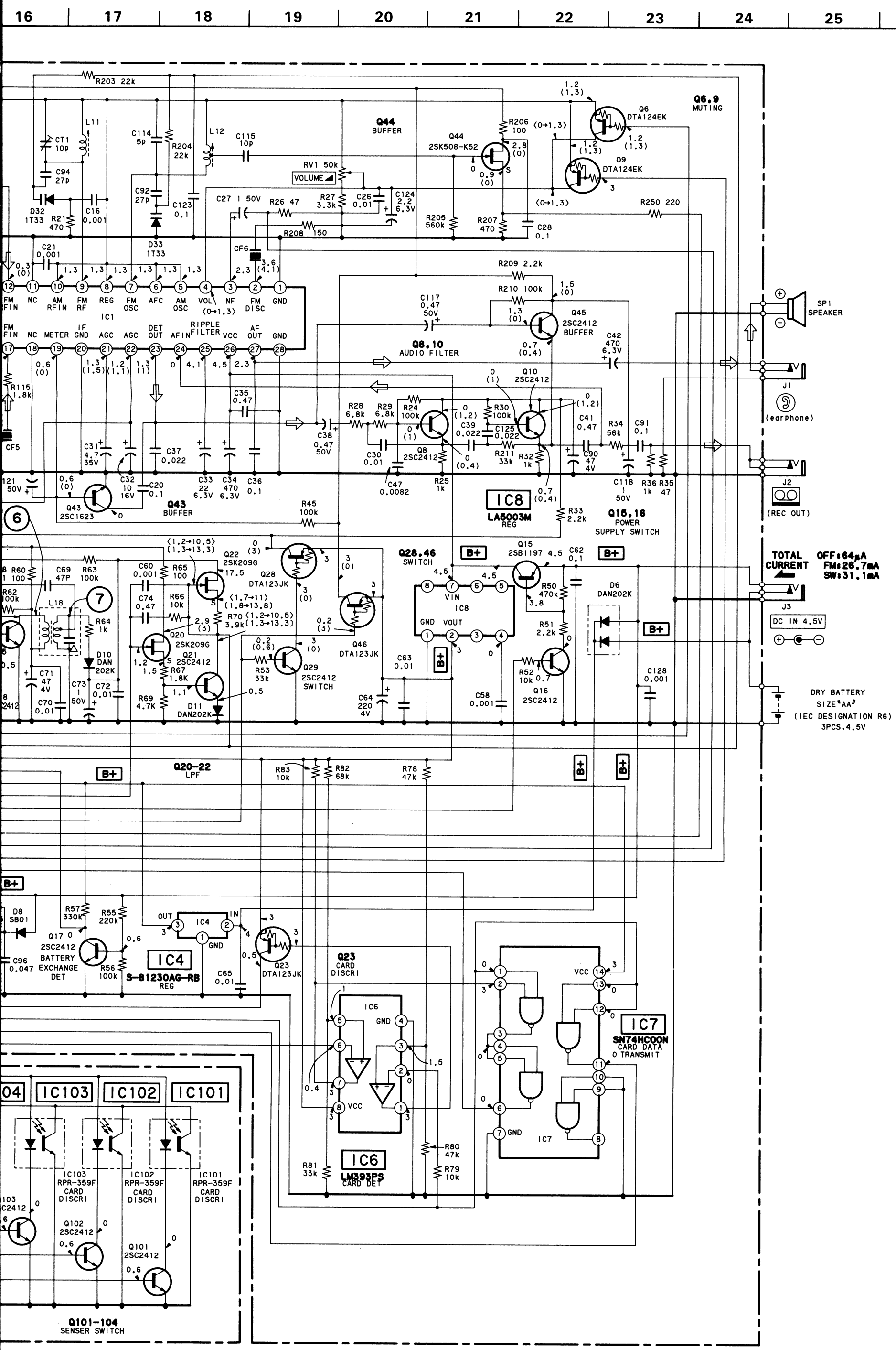
When replacing RPR-359F :

1. When the rank for using is except "C", replace IC101 to 104 (all four of them) with the parts for correction. Replace the resister of R213 with 22kΩ.
2. When the rank for using is "C", replace the bad RPR-359F.



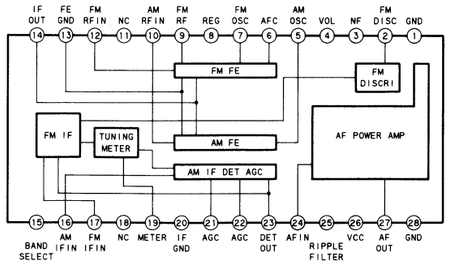
8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 1



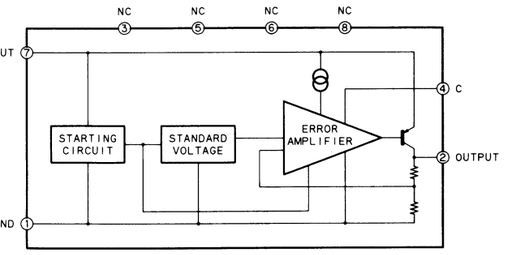

16
17
18
19
20
21
22
23
24
25
26
R203 22k
CT1 10p
L11
C114 5p
R204 22k
L12
C115 10p
Q44 BUFFER
Q44 2SK508-K52
R206 100
RV1 50k
VOLUME
C94 27p
C92 27p
C123 0.1
C27 1 50V
R26 47
R27 3.3k
C26 0.01
C124 2.2 6.3V
D32 1T33
R21 470
C16 0.001
D33 1T33
R208 150
R205 560k
R207 470
C28 0.1
Q6,9 MUTING
Q6 DTA124EK
Q9 DTA124EK
R250 220
C21 0.001
CF6
R209 2.2k
R210 100k
Q45 2SC2412 BUFFER
C117 0.47 50V
Q8,10 AUDIO FILTER
C42 470 6.3V
SP1 SPEAKER
J1 (earphone)
J2 (REC OUT)
J3 DC IN 4.5V
IC1
FM FIN
NC
AM RFIN
FM RF
REG
FM OSC
AFC
AM OSC
VOL
NF
FM DISC
GND
METER
IF GND
AGC
DET OUT
AFIN
RIPPLE FILTER
VCC
AF OUT
R115 1.8k
CF5
C31 4.7 35V
C32 10 16V
C20 0.1
C37 0.022
C33 22 6.3V
C34 470 6.3V
C36 0.1
C35 0.47
C38 0.47 50V
R28 6.8k
R29 6.8k
R24 100k
C39 0.022
R30 100k
C125 0.022
C41 0.47
R34 56k
C91 0.1
C30 0.01
C47 0.0082
Q8 2SC2412
R25 1k
R211 33k
R32 1k
C90 47 4V
C118 1 50V
R36 1k
R35 47
Q10 2SC2412
Q43 2SC1623 BUFFER
R45 100k
IC8 LA5003M REG
R33 2.2k
Q15,16 POWER SUPPLY SWITCH
TOTAL CURRENT
OFF:64μA
FM:26.7mA
SW:31.1mA
DRY BATTERY SIZE "AA" (IEC DESIGNATION R6) 3PCS,4.5V
Q28,46 SWITCH
B+
Q15 2SB1197
C62 0.1
D6 DAN202K
R50 470k
R51 2.2k
R52 10k
Q16 2SC2412
C128 0.001
C58 0.001
C63 0.01
C64 220 4V
IC8
VIN
GND
VOUT
R60 100
R62 100k
R63 100k
C69 47P
L18
R64 1k
D10 DAN 202K
C71 47 4V
C73 1 50V
C72 0.01
C70 0.01
C60 0.001
R65 100
C74 0.47
R66 10k
R70 3.9k
Q22 2SK209G
Q28 DTA123JK
Q20 2SK209G
Q21 2SC2412
R67 1.8K
R69 4.7K
D11 DAN202K
Q29 2SC2412 SWITCH
R53 33k
Q46 DTA123JK
Q20-22 LPF
R83 10k
R82 68k
R78 47k
D8 SB01
R57 330k
R55 220k
Q17 2SC2412 BATTERY EXCHANGE DET
R56 100k
C96 0.047
IC4
S-81230AG-RB REG
C65 0.01
OUT
IN
GND
Q23 DTA123JK
Q23 CARD DISCRI
IC6
LM393PS CARD DET
R81 33k
R80 47k
R79 10k
IC7
SN74HCOON CARD DATA O TRANSMIT
IC103
IC102
IC101
RPR-359F CARD DISCRI
Q101 2SC2412
Q102 2SC2412
Q101-104 SENSER SWITCH

C Block Diagrams

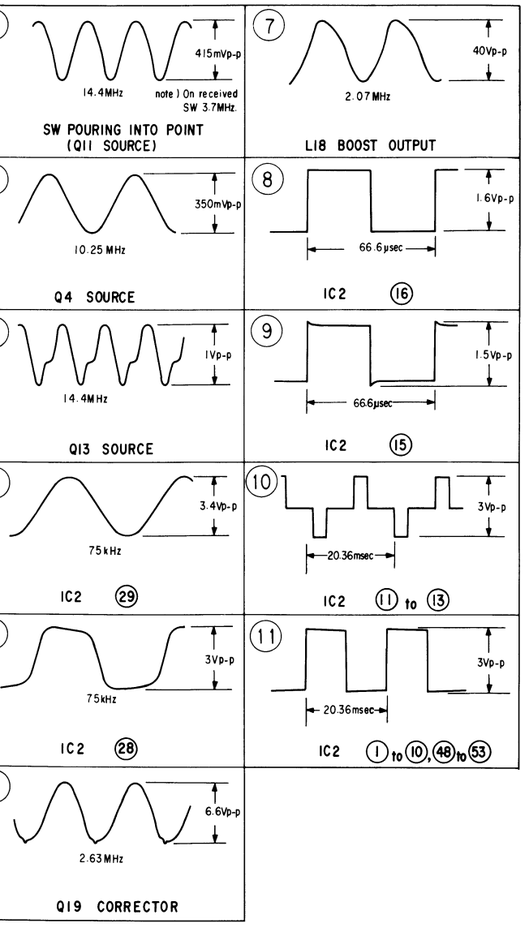
C1 CXA1019M



3 LA5003M

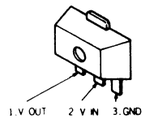


Waveforms

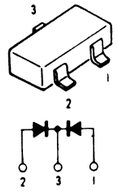


4-3. SEMICONDUCTOR LEAD LAYOUTS

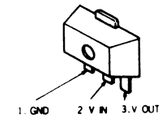
S-8052ALY



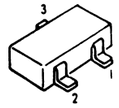
MA152WK



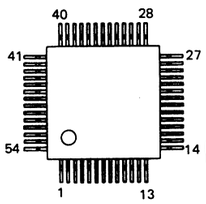
S-81230AG-RB

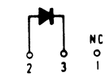


RD16M-B
SB01-05CP

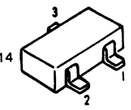


μPD1715G-605-22

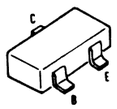


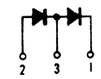


1SS226

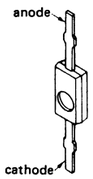


DTA123JK
DTA144EK
DTC144EK
2SB624-BV4
2SB1197K-R
2SC1623
2SC2223-F13
2SC2412K-R
2SD596

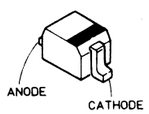




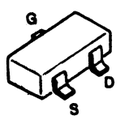
1SS279



1T33



2SK94
2SK209-G
2SK508-K51

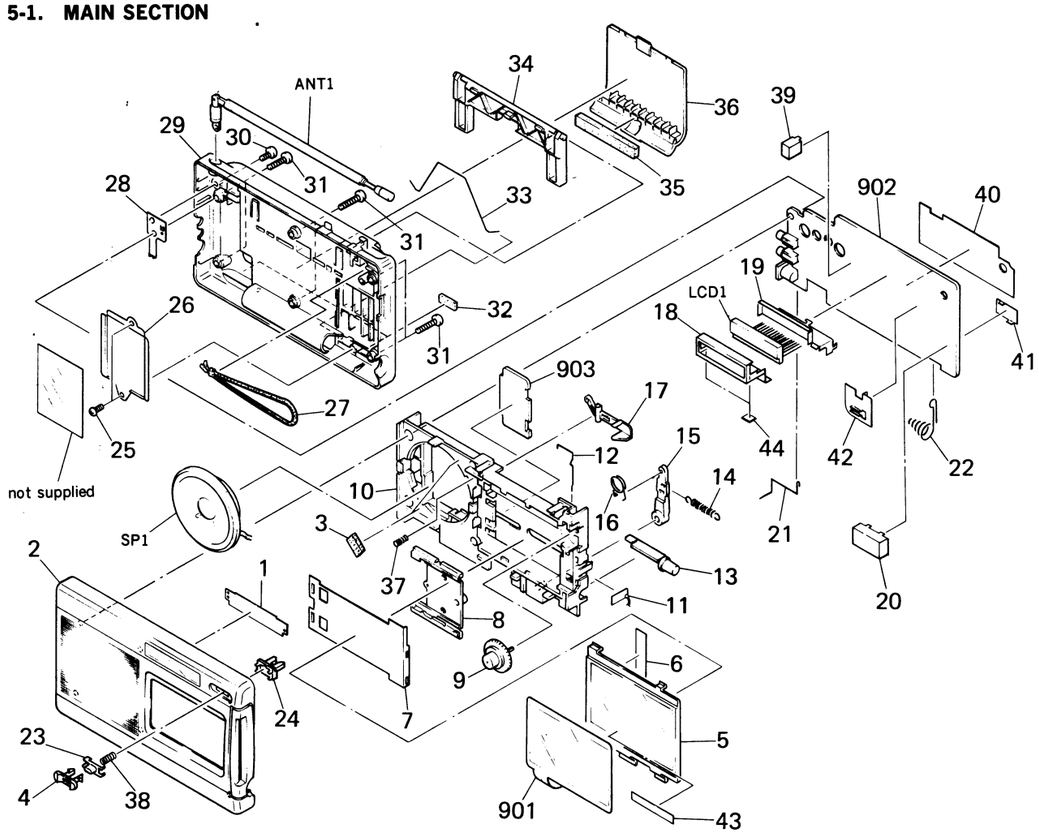


SECTION 5
EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ Cabinet's Color ↑ Parts Color

5-1. MAIN SECTION



Ref.No	Part No.	Description	Remarks
1	3-902-924-01	SHEET (TRANSPARENT CONDUCTIVE)	
2	X-3899-515-1	CABINET (FRONT) ASSY	
3	9-911-841-XX	CUSHION, ANTENNA	
4	3-902-824-21	BUTTON (POWER)	
5	3-902-211-01	PLATE(TOUCH PANEL),TRANSPARENT	
6	3-902-240-01	SHEET (SHIELD PLATE)	
7	*3-362-271-01	PLATE, BACK	
8	3-902-214-01	SLIDER	
9	3-902-212-01	KNOB (VOLUME)	
10	*3-902-227-01	CHASSIS	
11	*3-902-268-01	COPPER LEAF (A)	
12	3-902-267-01	SPRING (VOLUME RETAINER)	
13	3-902-213-11	BUTTON (EJECT)	
14	3-902-218-01	SPRING, TENSION	
15	3-902-215-01	LEVER (REVERSE)	
16	3-902-217-01	SPRING (REVERSE)	
17	3-902-209-01	STOPPER (SLIDER)	
18	*3-902-221-01	CASE (LCD-A), SHIELD	
19	*3-902-222-01	CASE (LCD-B), SHIELD	
20	*3-902-919-01	PLATE (D), SHIELD	
21	3-902-219-01	TERMINAL (PLUS), BATTERY	
22	3-902-220-01	SPRING	
23	3-902-825-01	STOPPER	
24	3-902-826-01	RETAINER, BUTTON	
25	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT	
26	*3-902-224-01	PLATE, ORNAMENTAL	
27	3-902-226-01	STRAP, HAND	
28	*3-902-208-01	PLATE (ANTENNA), CONTACT	
29	3-902-228-21	CABINET (REAR)	
30	7-682-548-09	SCREW +B 3X8	
31	7-685-152-19	SCREW +P 3X25 TYPE2 NON-SLIT	
32	3-902-277-01	FOOT, RUBBER	
33	3-902-225-01	SPRING (CARD RETAINER)	
34	3-902-206-11	STAND	
35	3-902-239-01	CUSHION (BATTERY)	
36	3-902-207-11	LID, BATTERY CASE	
37	3-902-210-01	SPRING, COMPRESSION	
38	3-902-828-01	SPRING, COMPRESSION	
39	*3-902-915-01	PLATE (A), SHIELD	
40	*X-3902-902-1	PLATE ASSY, SHIELD	
41	*3-902-920-01	PLATE (E), SHIELD	
42	*X-3902-903-1	PLATE ASSY (B), SHIELD	
43	*4-908-985-01	SHEET (A), ADHESIVE	
44	9-911-863-XX	SPACER (A)	
901	1-572-150-11	SWITCH, KEYBOARD	
902	A-3615-385-A	PC BOARD ASSY, MAIN	
903	*1-635-418-11	PC BOARD, SENSOR	
ANT1	1-501-402-11	ANTENNA, TELESCOPIC	
LCD1	1-809-048-11	DISPLAY PANEL, LIQUID CRYSTAL	
SP1	1-502-631-00	SPEAKER	

NOTE:

- Due to standardization, re
  list may be different fro
  the diagrams or the comp
- Items marked "★" are
  are seldom required for
  delay should be anticipat
  items.
- If there are two or more
  such as a stereophonic
  circuit parts may be indic
  resistors in other same c

Ref.No	Part No.	Desc
901	1-572-150-11	SWITCH
902	A-3615-385-A	PC BOA
903	*1-635-418-11	PC BOA
ANT1	1-501-402-11	ANTEN
BPF1	1-236-169-11	FILTER
		CAPACITO
C1	1-163-009-11	CERAM
C2	1-163-086-00	CERAM
C3	1-163-083-00	CERAM
C4	1-163-119-00	CERAM
C5	1-164-004-11	CERAM
C6	1-163-093-00	CERAM
C7	1-163-103-00	CERAM
C8	1-163-111-00	CERAM
C9	1-164-004-11	CERAM
C10	1-164-232-11	CERAM
C11	1-164-232-11	CERAM
C12	1-164-232-11	CERAM
C13	1-163-088-00	CERAM
C14	1-126-607-11	ELECT
C15	1-163-009-11	CERAM
C16	1-163-009-11	CERAM
C17	1-163-037-11	CERAM
C18	1-164-004-11	CERAM
C19	1-164-004-11	CERAM
C20	1-164-004-11	CERAM
C21	1-163-009-11	CERAM
C22	1-124-779-00	ELECT
C23	1-163-117-00	CERAM
C24	1-163-117-00	CERAM
C25	1-163-117-00	CERAM
C26	1-164-232-11	CERAM
C27	1-126-193-11	ELECT
C28	1-164-004-11	CERAM
C29	1-135-091-00	TANTA
C30	1-164-232-11	CERAM
C31	1-126-603-11	ELECT
C32	1-124-779-00	ELECT
C33	1-124-778-00	ELECT
C34	1-124-472-11	ELECT
C35	1-164-005-11	CERAM
C36	1-164-004-11	CERAM
C37	1-163-037-11	CERAM
C38	1-126-191-11	ELECT
C39	1-163-037-11	CERAM
C41	1-162-637-11	CERAM
C42	1-124-135-00	ELECT
C43	1-163-093-00	CERAM
C44	1-164-232-11	CERAM
C45	1-163-085-00	CERAM
C46	1-161-055-00	CERAM
C47	1-163-020-00	CERAM

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

Ref.No	Part No.	Description			
901	1-572-150-11	SWITCH, KEYBOARD			
902	A-3615-385-A	PC BOARD ASSY, MAIN			
903	*1-635-418-11	PC BOARD, SENSOR			
ANT1	1-501-402-11	ANTENNA, TELESCOPIC			
BPF1	1-236-169-11	FILTER, BAND PASS			
		CAPACITOR			
C1	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C2	1-163-086-00	CERAMIC CHIP	3PF	0.25PF	50V
C3	1-163-083-00	CERAMIC CHIP	1PF	0.25PF	50V
C4	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C5	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C6	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C7	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C8	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C9	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C10	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C11	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C12	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C13	1-163-088-00	CERAMIC CHIP	5PF	0.25PF	50V
C14	1-126-607-11	ELECT CHIP	47MF	20%	4V
C15	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C16	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C17	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C18	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C19	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C20	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C21	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C22	1-124-779-00	ELECT CHIP	10MF	20%	16V
C23	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C24	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C25	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C26	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C27	1-126-193-11	ELECT CHIP	1MF	20%	50V
C28	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C29	1-135-091-00	TANTAL. CHIP	1MF	20%	16V
C30	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C31	1-126-603-11	ELECT CHIP	4.7MF	20%	35V
C32	1-124-779-00	ELECT CHIP	10MF	20%	16V
C33	1-124-778-00	ELECT CHIP	22MF	20%	6.3V
C34	1-124-472-11	ELECT	470MF	20%	6.3V
C35	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C36	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C37	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C38	1-126-191-11	ELECT CHIP	0.47MF	20%	50V
C39	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C41	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C42	1-124-135-00	ELECT	470MF	20%	6.3V
C43	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C44	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C45	1-163-085-00	CERAMIC CHIP	2PF	0.25PF	50V
C46	1-161-055-00	CERAMIC	0.022MF	20%	25V
C47	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V

Ref.No	Part No.	Description			
C48	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C49	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C50	1-135-180-21	TANTAL. CHIP	3.3MF	20%	4V
C51	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C52	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C53	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C54	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C55	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C56	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C57	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C58	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C59	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C60	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C62	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C63	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C64	1-126-246-11	ELECT CHIP	220MF	20%	4V
C65	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C66	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C67	1-124-471-00	ELECT	1000MF	20%	6.3V
C68	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C69	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C70	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C71	1-126-607-11	ELECT CHIP	47MF	20%	4V
C72	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C73	1-126-193-11	ELECT CHIP	1MF	20%	50V
C74	1-136-745-11	FILM	0.47MF	5%	50V
C75	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C76	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C77	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C78	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C79	1-163-170-00	CERAMIC CHIP	36PF	5%	50V
C80	1-163-161-00	CERAMIC CHIP	15PF	5%	50V
C81	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C82	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C83	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C84	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C85	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C86	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C87	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C88	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C89	1-126-607-11	ELECT CHIP	47MF	20%	4V
C90	1-126-607-11	ELECT CHIP	47MF	20%	4V
C91	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C92	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C93	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C94	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C95	1-126-607-11	ELECT CHIP	47MF	20%	4V
C96	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C98	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C99	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C101	1-162-638-11	CERAMIC CHIP	1MF		16V
C102	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C111	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C112	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C114	1-163-088-00	CERAMIC CHIP	5PF	0.25PF	50V

Ref.No	Part No.	Description			
C115	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C116	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C117	1-126-191-11	ELECT CHIP	0.47MF	20%	50V
C118	1-126-193-11	ELECT CHIP	1MF	20%	50V
C119	1-124-778-00	ELECT CHIP	22MF	20%	6.3V
C120	1-126-193-11	ELECT CHIP	1MF	20%	50V
C121	1-126-601-11	ELECT CHIP	2.2MF	20%	50V
C122	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C123	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C124	1-135-149-21	TANTAL. CHIP	2.2MF	20%	6.3V
C125	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C128	1-163-009-11	CERAMIC CHIP	0.001MF		50V
C129	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C130	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
CF1	1-577-688-11	FILTER, CERAMIC (TRAP)			
CF2	1-577-687-11	FILTER, CERAMIC			
CF3	1-577-601-11	FILTER, CERAMIC			
CF4	1-577-325-11	FILTER, CERAMIC			
CF5	1-577-325-11	FILTER, CERAMIC			
CF6	1-577-325-11	FILTER, CERAMIC			
CN2	1-568-555-11	CONNECTOR, FPC (L TYPE) 10P			
CT1	1-141-354-21	CAP, VAR, TRIMMER 10pF			
D1	8-719-800-76	DIODE 1SS226			
D2	8-719-800-76	DIODE 1SS226			
D3	8-719-400-18	DIODE MA152WK			
D4	8-719-400-18	DIODE MA152WK			
D5	8-713-300-57	DIODE 1T33			
D6	8-719-400-18	DIODE MA152WK			
D8	8-719-938-72	DIODE SB01-05CP			
D9	8-719-106-98	DIODE RD16M-B			
D10	8-719-400-18	DIODE MA152WK			
D11	8-719-400-18	DIODE MA152WK			
D12	8-713-300-57	DIODE 1T33			
D16	8-719-400-18	DIODE MA152WK			
D17	8-719-400-18	DIODE MA152WK			
D18	8-719-400-18	DIODE MA152WK			
D19	8-719-400-18	DIODE MA152WK			
D20	8-719-400-18	DIODE MA152WK			
D21	8-719-400-18	DIODE MA152WK			
D23	8-719-123-79	DIODE 1SS279			
D24	8-719-400-18	DIODE MA152WK			
D31	8-719-938-72	DIODE SB01-05CP			
D32	8-713-300-57	DIODE 1T33			
D33	8-713-300-57	DIODE 1T33			
IC1	8-759-605-77	IC CXA1019M			
IC2	8-759-150-42	IC UPD1715G-605-22			
IC3	8-759-922-48	IC S-8052ALY			
IC4	8-759-939-41	IC S-81230AG-RB			
IC5	8-759-748-65	IC BR93CS46F			
IC6	8-759-988-13	IC LM393PS			
IC7	8-759-927-46	IC SN74HC00NS			
IC8	8-759-801-15	IC LA5003M			
IC9	8-759-939-41	IC S-81230AG-RB			
IC101	8-759-989-76	IC RPR-359F			
IC102	8-759-989-76	IC RPR-359F			
IC103	8-759-989-76	IC RPR-359F			
IC104	8-759-989-76	IC RPR-359F			
J1	1-563-330-11	JACK (EARPHONE)			
J2	1-563-330-11	JACK (REC OUT)			
J3	1-507-954-11	JACK, EXTERNAL POWER (DC IN 4.5V)			
L1	1-410-733-11	INDUCTOR CHIP 0.22UH			
L2	1-410-740-21	INDUCTOR CHIP 0.82UH			

Ref.No	Part No.	Description
L3	1-410-374-11	INDUCTOR CHIP 2.7UH
L4	1-410-655-31	INDUCTOR CHIP 120UH
L5	1-410-379-21	INDUCTOR CHIP 6.8UH
L6	1-410-373-31	INDUCTOR CHIP 2.2UH
L7	1-410-371-21	INDUCTOR CHIP 1.5UH
L8	1-426-357-11	TRANSFORMER, RF
L9	1-426-464-11	COIL (RF)
L10	1-404-362-61	TRANSFORMER, IF
L11	1-460-082-11	COIL, WITH-CORE
L12	1-459-838-11	COIL (WITH CORE)
L14	1-410-393-11	INDUCTOR CHIP 100UH
L15	1-426-465-11	COIL (RF)
L16	1-410-374-11	INDUCTOR CHIP 2.7UH
L17	1-410-393-11	INDUCTOR CHIP 100UH
L18	1-449-138-11	TRANSFORMER, DC-DC CONVERTER
L19	1-412-010-41	INDUCTOR CHIP 22UH
LCD1	1-809-048-11	DISPLAY PANEL, LIQUID CRYSTAL
Q1	8-729-116-64	TRANSISTOR 2SK508-K51
Q2	8-729-109-44	TRANSISTOR 2SK94
Q3	8-729-109-44	TRANSISTOR 2SK94
Q4	8-729-109-44	TRANSISTOR 2SK94
Q5	8-729-109-44	TRANSISTOR 2SK94
Q6	8-729-901-05	TRANSISTOR DTA124EK
Q7	8-729-901-78	TRANSISTOR 2SC2412K-R
Q8	8-729-901-78	TRANSISTOR 2SC2412K-R
Q9	8-729-901-05	TRANSISTOR DTA124EK
Q10	8-729-901-78	TRANSISTOR 2SC2412K-R
Q11	8-729-220-93	TRANSISTOR 2SK209-G
Q12	8-729-102-07	TRANSISTOR 2SC2223-F13
Q13	8-729-109-44	TRANSISTOR 2SK94
Q14	8-729-102-07	TRANSISTOR 2SC2223-F13
Q15	8-729-904-87	TRANSISTOR 2SB1197K-R
Q16	8-729-901-78	TRANSISTOR 2SC2412K-R
Q17	8-729-901-78	TRANSISTOR 2SC2412K-R
Q18	8-729-901-78	TRANSISTOR 2SC2412K-R
Q19	8-729-159-64	TRANSISTOR 2SD596
Q20	8-729-220-93	TRANSISTOR 2SK209-G
Q21	8-729-901-78	TRANSISTOR 2SC2412K-R
Q22	8-729-220-93	TRANSISTOR 2SK209-G
Q23	8-729-923-62	TRANSISTOR DTA123JK
Q28	8-729-923-62	TRANSISTOR DTA123JK
Q29	8-729-901-78	TRANSISTOR 2SC2412K-R
Q30	8-729-159-64	TRANSISTOR 2SD596
Q31	8-729-159-64	TRANSISTOR 2SD596
Q40	8-729-901-01	TRANSISTOR DTC144EK
Q41	8-729-901-06	TRANSISTOR DTA144EK
Q42	8-729-100-66	TRANSISTOR 2SC1623
Q43	8-729-100-66	TRANSISTOR 2SC1623
Q44	8-729-116-64	TRANSISTOR 2SK508-K51
Q45	8-729-901-78	TRANSISTOR 2SC2412K-R
Q46	8-729-923-62	TRANSISTOR DTA123JK
Q101	8-729-901-78	TRANSISTOR 2SC2412K-R
Q102	8-729-901-78	TRANSISTOR 2SC2412K-R
Q103	8-729-901-78	TRANSISTOR 2SC2412K-R
Q104	8-729-901-78	TRANSISTOR 2SC2412K-R

RESISTOR

R1	1-216-045-00	METAL GLAZE	680	5%	1/10W
R2	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R3	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R4	1-216-150-00	METAL GLAZE	10	5%	1/8W
R5	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R6	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R7	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W

Ref.No	Part No.	Description			
R8	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R9	1-216-025-00	METAL GLAZE	100	5%	1/10W
R10	1-216-045-00	METAL GLAZE	680	5%	1/10W
R11	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R12	1-216-025-00	METAL GLAZE	100	5%	1/10W
R13	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R14	1-216-025-00	METAL GLAZE	100	5%	1/10W
R15	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R16	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R17	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R19	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R20	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R21	1-216-041-00	METAL GLAZE	470	5%	1/10W
R22	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R23	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R24	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R25	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R26	1-216-017-00	METAL GLAZE	47	5%	1/10W
R27	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R28	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R29	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R30	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R32	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R33	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R34	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R35	1-216-017-00	METAL GLAZE	47	5%	1/10W
R36	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R37	1-216-043-00	METAL GLAZE	560	5%	1/10W
R38	1-216-025-00	METAL GLAZE	100	5%	1/10W
R39	1-216-115-00	METAL GLAZE	560K	5%	1/10W
R40	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R41	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R42	1-216-043-00	METAL GLAZE	560	5%	1/10W
R43	1-216-115-00	METAL GLAZE	560K	5%	1/10W
R44	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R45	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R47	1-216-041-00	METAL GLAZE	470	5%	1/10W
R48	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R49	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R50	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R51	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R52	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R53	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R55	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R56	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R57	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R58	1-216-018-00	METAL GLAZE	51	5%	1/10W
R60	1-216-025-00	METAL GLAZE	100	5%	1/10W
R61	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R62	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R63	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R64	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R65	1-216-025-00	METAL GLAZE	100	5%	1/10W
R66	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R67	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R68	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R69	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R70	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R78	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R79	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R80	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R81	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R82	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R83	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R84	1-216-121-00	METAL GLAZE	1M	5%	1/10W

Ref.No	Part No.	Description			
R85	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R86	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R87	1-216-115-00	METAL GLAZE	560K	5%	1/10W
R88	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R89	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R90	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R91	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R92	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R93	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R94	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R95	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R96	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R99	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R100	1-216-115-00	METAL GLAZE	560K	5%	1/10W
R101	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R102	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R103	1-216-043-00	METAL GLAZE	560	5%	1/10W
R104	1-216-047-00	METAL GLAZE	820	5%	1/10W
R105	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R106	1-216-058-00	METAL GLAZE	2.4K	5%	1/10W
R107	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R108	1-216-023-00	METAL GLAZE	82	5%	1/10W
R109	1-216-025-00	METAL GLAZE	100	5%	1/10W
R111	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R112	1-216-037-00	METAL GLAZE	330	5%	1/10W
R113	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R114	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R115	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R200	1-216-025-00	METAL GLAZE	100	5%	1/10W
R201	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R202	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R203	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R204	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R205	1-216-115-00	METAL GLAZE	560K	5%	1/10W
R206	1-216-025-00	METAL GLAZE	100	5%	1/10W
R207	1-216-041-00	METAL GLAZE	470	5%	1/10W
R208	1-216-029-00	METAL GLAZE	150	5%	1/10W
R209	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R210	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R211	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R212	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R213	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R213	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R213	1-216-748-11	METAL GLAZE	39K	5%	1/10W
R213	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R214	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R215	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R216	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R217	1-216-033-00	METAL GLAZE	220	5%	1/10W
R250	1-216-033-00	METAL GLAZE	220	5%	1/10W
RV1	1-228-790-00	RES, VAR, CARBON 50K (VOLUME)			
S1	1-571-428-11	SWITCH, SLIDE (POWER)			
S2	1-571-958-11	SWITCH, PUSH (1 KEY) (CARD DET)			
SP1	1-502-631-00	SPEAKER			
X1	1-567-896-11	VIBRATOR, CRYSTAL 10.25MHz			
X2	1-567-769-11	VIBRATOR, CRYSTAL 75kHz			

ACCESSORIES & PACKING MATERIALS
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A-3604-156-A ANTENNA ASSY (AN-61), COMPACT
1-504-116-11 EARPHONE
*3-362-146-01 INDIVIDUAL CARTON
3-752-193-11 MANUAL, INSTRUCTION (ENGLISH,FRENCH)
3-893-940-16 GUIDE, SHORT WAVE
*3-902-902-01 CUSHION

—Kind of cards—

3-900-192-01 CARD (CLOCK)

3-362-888-01 (5/AE7)....CARD (OMNIBUS, MEMORIES)
3-362-889-01 (5/AE7)....CARD (FREE, MEMORIES)
3-362-890-01 (5/AE7)....CARD (AUSTRIAN RADIO)

3-362-894-01 (3/AE7)....CARD (OMNIBUS,MEMORIES)
3-362-895-01 (3/AE7)....CARD (OMNIBUS)
3-362-896-01 (3/AE7)....CARD (FREE,MEMORIES)

3-900-190-01 (AE6)....CARD (MEMORY, OMNIBUS)
3-900-191-01 (AE6)....CARD (DEUTSCHE WELLE, FM CARD)
3-900-193-01 (AE6)....CARD (MEMORY, OMNIBUS)

5/AE7 : Austria
3/AE7 : Swiss
AE6 : Germany

MC-Service

9-955-998-11

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